

## CLAIMS

What is claimed is:

1. A method of cleaning substrates, comprising the steps of:

providing a cleaning fluid;

forming a supercritical cleaning fluid from said cleaning fluid; and

contacting the substrate with said supercritical cleaning fluid.

2. The method of claim 1 wherein said cleaning fluid is carbon dioxide.

3. The method of claim 1 wherein said contacting the substrate with said supercritical cleaning fluid comprises the step of contacting the substrate with said supercritical cleaning fluid for about 5-10 minutes.

4. The method of claim 3 wherein said cleaning fluid is carbon dioxide.

5. The method of claim 1 further comprising the step of

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mixing a solvent with said cleaning fluid prior to said forming a supercritical cleaning fluid from said cleaning fluid.

6. The method of claim 5 wherein said cleaning fluid is carbon dioxide.

7. The method of claim 1 wherein said supercritical cleaning fluid is non-conductive.

8. The method of claim 1 wherein said cleaning fluid is selected from the group consisting of methane, ethane, propane, ammonia, nitric oxide, fluoromethane and difluoromethane.

9. The method of claim 8 wherein said solvent is an alcohol.

10. The method of claim 1 wherein each of said substrates comprises exposed N-doped and P-doped regions.

11. The method of claim 1 wherein each of said substrates comprises an exposed conductive layer.

12. The method of claim 11 wherein each of said substrates comprises exposed N-doped and P-doped regions and an exposed conductive layer.

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13. A method of cleaning a substrate, comprising the steps of:

providing fluid carbon dioxide;

forming a supercritical carbon dioxide from said fluid carbon dioxide; and

contacting the substrate with said supercritical carbon dioxide.

14. The method of claim 13 further comprising the step of mixing a solvent with said fluid carbon dioxide to define a fluid mixture prior to said forming a supercritical carbon dioxide from said fluid carbon dioxide.

15. The method of claim 13 wherein said supercritical carbon dioxide is non-conductive.

16. The method of claim 13 wherein said substrate comprises exposed N-doped and P-doped regions and an exposed conductive layer.

17. A method of cleaning a substrate, comprising the steps of:

providing a cleaning fluid selected from the group

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consisting of methane, ethane, propane, ammonia, nitric oxide, fluoromethane and difluoromethane;

forming a supercritical cleaning fluid from said cleaning fluid; and

contacting the substrate with said supercritical cleaning fluid.

18. The method of claim 17 further comprising the step of mixing a solvent with said cleaning fluid to define a fluid mixture prior to said forming a supercritical cleaning fluid from said cleaning fluid.

19. The method of claim 17 wherein said supercritical cleaning fluid is non-conductive.

20. The method of claim 17 wherein said substrate comprises exposed N-doped and P-doped regions and an exposed conductive layer.